

SOUVENIR



WELLCOME COLL.

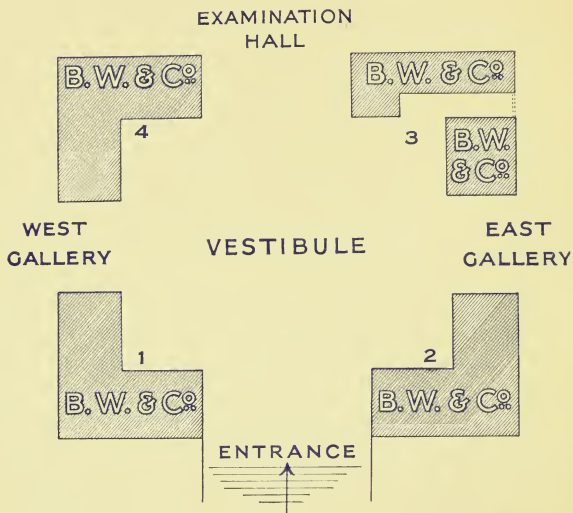
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WELLCOME & Co

WELLCOME COLLECTION

293

BURROUGHS WELLCOME & CO. EXHIBITS
VESTIBULE, UNIVERSITY OF LONDON



EXHIBIT

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For the Medical Profession only

SOUVENIR
B.M.A.
CENTENARY
MEETING
1932

Wellcome Library
for the History
and Understanding
of Medicine



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BURROUGHS WELLCOME & CO.
(THE WELLCOME FOUNDATION LTD.)
LONDON (ENG.)

Associated Houses:

NEW YORK MONTREAL SYDNEY CAPE TOWN MILAN
BOMBAY SHANGHAI BUENOS AIRES

Printed in England

TRADE 'DIGINUTIN' MARK

Total Glucosides of Digitalis Leaf
Stable—Always fully active

FROG TEST

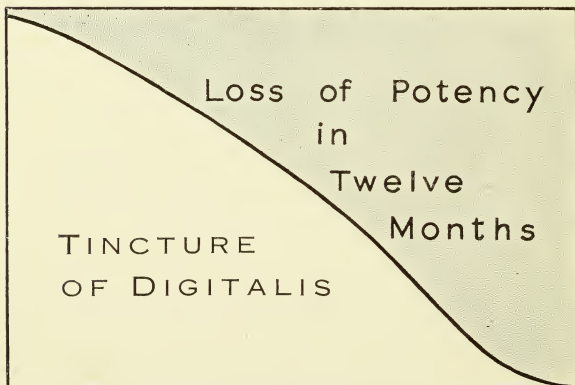
'DIGINUTIN'

Original Potency
Permanently
Maintained

TINCTURE OF DIGITALIS
(average)*

Progressive Deterioration

FROG TEST



* *Quarterly Journal and Year Book of Pharmacy and Pharmacology*,
Vol. II., 1929, page 60

'DIGINUTIN' always produces same effect for same dose

FOREWORD

THE EXHIBITS OF BURROUGHS WELLCOME & CO.

AT the Centenary Meeting of the British Medical Association, the exhibits of Burroughs Wellcome & Co. are designed primarily to demonstrate the part which the firm has played in pioneering and developing many important therapeutic agents by the application of scientific research to the pharmaceutical industry. Incidentally, also, they show the wide range of the firm's activities in the preparation of medicaments from animal, vegetable and mineral sources, as well as by synthetic processes, all of which medicaments are characterised by exceptional purity, precise accuracy and reliability in physiological effect.

In passing, it is interesting to note that, after the passage of half a century, 'TABLOID' medicaments, the outcome of the firm's pioneer work in the development of compressed products, maintain their ascendancy and that the 'Kepler' Cod Liver Oil and Malt products have had their dietetic value, already established by many years' empirical use, confirmed by the most stringent modern tests for vitamin efficiency.



The replacement of a number of variable and uncertain galenical preparations by products of definite, unvarying strength and activity is another phase of the firm's work. An excellent example of this is to be found in 'DIGINUTIN,' a solution of the total glucosides of digitalis leaf, which replaces the unstable and variable Tincture of Digitalis.

A strong historical appeal is made by the exhibition of the 'Tabloid' Medical and First-Aid Equipments carried by famous explorers, travellers, aviators and others from 1888 to the present time. It is of interest to learn that a Medicine Chest, supplied by Burroughs Wellcome & Co. to the Stanley Expedition in 1888 in the search for Emin Pasha, has recently been re-discovered in the Government Medical Stores at Nairobi, Kenya.



SERA

ONE of the features which indicates progress in the preparation of sera is *concentration of effective dosage in a small volume*. Methods have been devised and developed which make it possible to separate the antitoxin-bearing globulin fraction of antitoxin-serum from proteins which, while adding to the bulk of the preparation, are devoid of antitoxic value. The advantages of such a reduction in the volume to be injected are obvious. The great advances made in this direction in connexion with Diphtheria and Tetanus Antitoxins are demonstrated by exhibits. The method of concentration has been applied also to gas-gangrene and staphylococcus sera. *All 'Wellcome' Sera are made in England.*

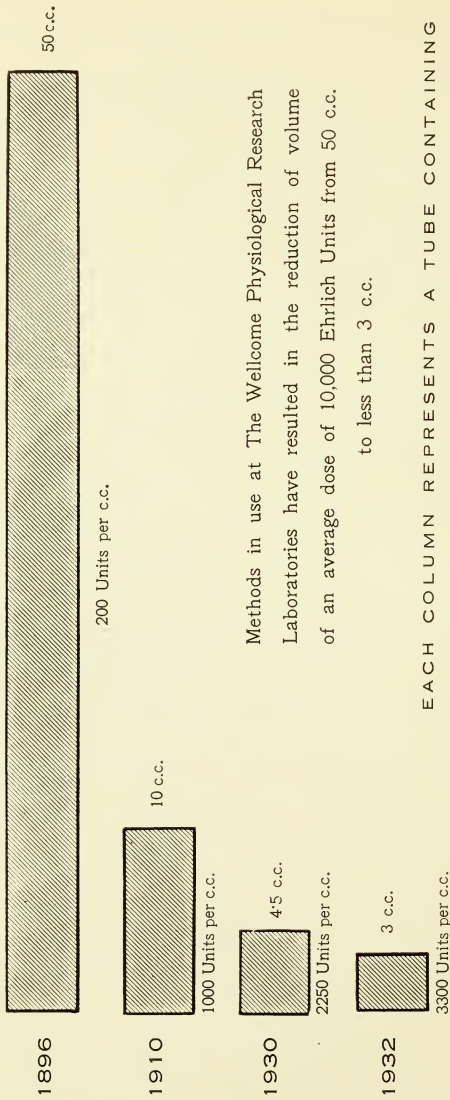
Preparations

TRADE MARK 'WELLCOME' BRAND

- „ CONCENTRATED DIPHTHERIA ANTITOXIN—GLOBULINS
Germ-proof containers of 500, 1000†, 2000†, 3000†, 4000†, 5000†, 6000†, 8000†, 10,000† and 20,000† Ehrlich Units*
 * 400 Units or more per c.c. † 1000 Units or more per c.c.
 † 1500 Units or more per c.c.
Germ-proof containers of 10,000 Ehrlich Units (High Potency)
 2500 Units or more per c.c.
- „ CONCENTRATED GAS-GANGRENE ANTITOXIN (PERFRINGENS)—GLOBULINS—(*B. welchii*=*B. perfringens*)
Germ-proof containers of 4000 and 10,000 Units
 400 Units or more per c.c.
- „ CONCENTRATED STAPHYLOCOCCUS ANTITOXIN—GLOBULINS—
Germ-proof containers of 10 c.c.
- „ CONCENTRATED TETANUS ANTITOXIN—GLOBULINS—
For Curative Use—
Germ-proof containers of 20,000 International Units (=10,000 American Units). 3000 International Units or more per c.c.
- „ CONCENTRATED TETANUS ANTITOXIN—GLOBULINS—
For Prophylaxis—
Germ-proof containers of 1000 International Units (=500 American Units) and 3000 International Units (=1500 American Units). 1000 International Units or more per c.c.
(For full particulars, see Wellcome's Medical Diary)

TRADE
MARK

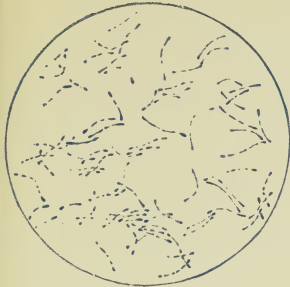
'WELLCOME' BRAND CONCENTRATED DIPHTHERIA ANTITOXIN—GLOBULINS
Greater Concentration Achieved by Improved Methods of Production



Methods in use at The Wellcome Physiological Research Laboratories have resulted in the reduction of volume of an average dose of 10,000 Ehrlich Units from 50 c.c. to less than 3 c.c.

EACH COLUMN REPRESENTS A TUBE CONTAINING
10,000 EHRLICH UNITS = ONE AVERAGE DOSE

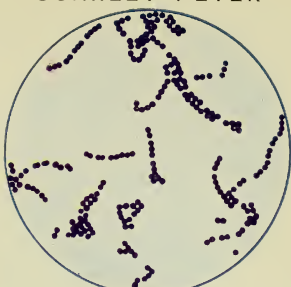
DIPHTHERIA



BACILLUS DIPHTHERIAE

Stained with 'Soloid' Methylene Blue

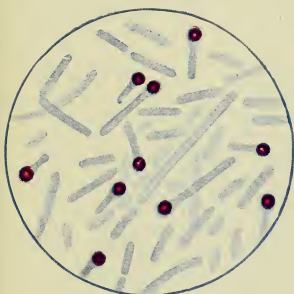
SCARLET FEVER



STREPTOCOCCUS OF SCARLET FEVER

Stained by Gram method ('Soloid' Gentian Violet and 'Soloid' Gram Iodine Solution)

TETANUS

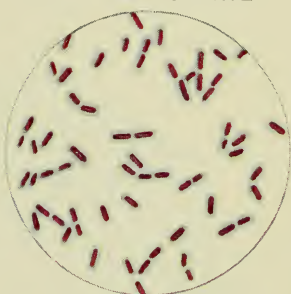


BACILLUS TETANI

showing spores

Stained with 'Soloid' Fuchsin (Basic) and 'Soloid' Methylene Blue

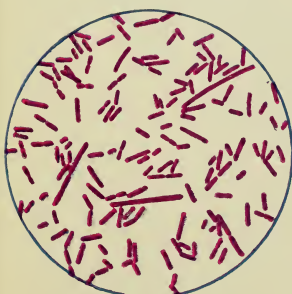
GAS-GANGRENE



BACILLUS WELCHII

Stained with 'Soloid' Fuchsin (Basic) and 'Soloid' Methylene Blue

TYPHOID FEVER

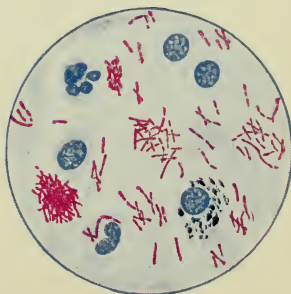


BACILLUS TYPHOSUS

from a young culture

Stained with 'Soloid' Fuchsin (Basic)

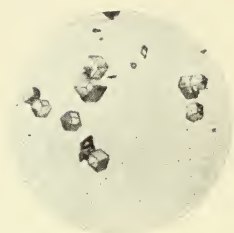
TUBERCULOSIS



BACILLUS TUBERCULOSIS

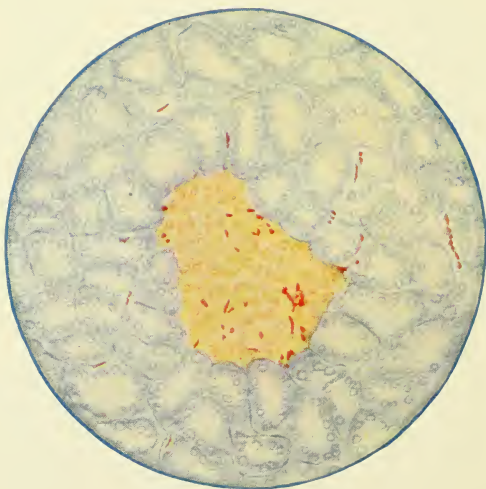
(Hominis) in Sputum

Stained with 'Soloid' Fuchsin (Basic) and 'Soloid' Methylene Blue



Insulin crystals obtained
from the
Insulin Hydrochloride
used in the preparation of

TRADE MARK 'WELLCOME' BRAND
INSULIN



Section of Pancreas, showing an Island of Langerhans

ANIMAL SUBSTANCES

ON the pharmaceutical side of organo-therapy Burroughs Wellcome & Co. were, and continue to be, pioneers. 'TABLOID' products are issued which present the whole gland substance. No solvents are used. The system of gland-grouping, originated by Burroughs Wellcome & Co., in which the claims of each gland substance are examined with definite reference to established physiological and clinical evidence, enables an estimate to be made of the potential therapeutic efficacy of any gland substance or combination.

Other animal substances of interest are 'Wellcome' Insulin, 'Wellcome' Liver Extract and Concentrated Liquid Liver Extract (B. W. & Co.).

INSULIN

'WELLCOME' BRAND INSULIN conforms to the Therapeutic Substances Act (Great Britain), 1925 (1931 Regulations). Every batch is biologically standardised at The Wellcome Physiological Research Laboratories, Beckenham, Kent (Eng.). It contains the minute amount of antiseptic considered by leading bacteriologists to be essential in insulin, to inhibit the growth of micro-organisms which may be accidentally introduced.

'Wellcome' Brand Insulin not only meets the legal standards, but the Insulin Hydrochloride used in its preparation has to conform to a standard of purity set by Burroughs Wellcome & Co. This standard has gradually been raised as methods of preparation have been improved and the standard now adopted approaches that of the purest Insulin ever obtained, even by research workers.

TRADE
MARK**Preparations**

'WELLCOME' BRAND INSULIN, 100 International Units in 5 c.c.; 200 International Units in 5 c.c.; 200 International Units in 10 c.c.; and 400 International Units in 5 c.c. [SEE B. W. & Co.]

Rubber-capped amber-glass phials

TRADE
MARK

'TABLOID' BRAND HYPODERMIC INSULIN HYDROCHLORIDE (10 units), *sterile* [SEE B. W. & Co.]

Each dose may be prepared in the syringe barrel as required; solution takes place immediately.

No. 150.—Cartons containing 10 products in ONE tube.

The only British Insulin issued as a compressed product

LIVER EXTRACT

'WELLCOME' BRAND LIVER EXTRACT is prepared by a method found efficient by the Medical Research Council after the substance had been subjected to clinical tests. It is a light brown powder and represents an active selected fraction of an extract of fresh liver.

'WELLCOME' BRAND LIVER EXTRACT, administered daily in pernicious anæmia, produces rapid progressive increase of the red blood cells to normal, with disappearance of the symptoms of the disease. Liver Extract is also issued in liquid form as CONCENTRATED LIQUID LIVER EXTRACT (B. W. & Co.)

PreparationsTRADE
MARK

'WELLCOME' BRAND LIVER EXTRACT [SEE B. W. & Co.]

Tubes, each containing an active selected fraction of an extract derived from half-a-pound of fresh liver.

Boxes of 12 tubes

LIVER EXTRACT, CONCENTRATED LIQUID (B. W. & Co.)

One fluid ounce contains the equivalent of eight ounces of liver.

Bottles containing 4 fl oz. and 16 fl oz.

SUPRARENAL (WHOLE GLAND)

IMPROVEMENT sometimes follows large doses of suprarenal gland substance in Addison's syndrome. In various forms of autonomic imbalance, or in Graves' syndrome, and in hyperthyroidism, persistent administration often relieves symptoms. It has been found useful in conditions dependent upon

hypoadrenia, such as certain forms of depression and melancholia, and after influenza and other acute infections, especially diphtheria.



Preparations

TRADE MARK 'TABLOID' BRAND SUPRARENAL GLAND, gr. 5 (0.324 gm.); and 0.3 gramme [SEE B. W. & Co.]

Each strength in bottles of 100

THYROID GLAND

'TABLOID' THYROID GLAND represents the whole substance of carefully-selected, healthy sheep's thyroids and can be relied on to produce the complete therapeutic effect of the fresh gland.

Standardisation.—'TABLOID' THYROID GLAND is standardised by chemical means so as to ensure that the fresh healthy gland, of which each product represents a definite amount, contains 0.08 per cent. of iodine in organic combination.



Section of THYROID GLAND

Magnification 50 diameters

Compare with PARATHYROID, page 10

This standard is equivalent to 0.32 per cent. of iodine in the desiccated gland substance.

'TABLOID' THYROXINE, prepared at the Wellcome Chemical Works, is also exhibited.

Preparations

TRADE MARK 'TABLOID' BRAND THYROID GLAND (*Standardised*), gr. 1/10 [0.0065 gm.]; gr. 1/4 [0.016 gm.]; gr. 1/2 [0.032 gm.]; gr. 1 [0.065 gm.]; gr. 1½ [0.097 gm.]; gr. 2 [0.13 gm.]; gr. 2½ [0.162 gm.]; gr. 5 [0.324 gm.]; 0.05 gramme; 0.1 gramme; and 0.3 gramme [SEE B. W. & Co.]

Each strength in bottles of 100

TRADE MARK 'TABLOID' BRAND THYROXINE, 0.0001 gramme; and 0.001 gramme [SEE B. W. & Co.]

Each strength in bottles of 100

PARATHYROID GLAND

PARATHYROID GLAND is given to raise the blood-calcium level when this is below normal in Raynaud's disease, urticaria, eczema and prurigo; also in angio-neurotic oedema, and hay fever. It is indicated in other states of lowered blood-calcium associated with tetany or with muscular irritability. A calcium salt is usually given conjointly with parathyroid to ensure that dietary calcium is sufficient for metabolic purposes. For this purpose, 'TABLOID' PARATHYROID GLAND AND CALCIUM LACTATE is issued.



Section of PARATHYROID GLAND
Magnification 50 diameters
Compare with THYROID, page 9

In view of the uncertainty as to the identity of the material sometimes offered as parathyroid gland, the gland substance used in 'TABLOID' PARATHYROID GLAND undergoes careful inspection, checked periodically by microscopic sections. By these means, the genuineness of all material used in 'TABLOID' PARATHYROID GLAND is ensured.

Preparations

TRADE MARK 'TABLOID' BRAND PARATHYROID GLAND, gr. $\frac{2}{5}$
(0.026 gm.) [equivalent to gr. $\frac{1}{10}$ (0.0065 gm.) of
desiccated gland] [SEE B. W. & Co.]

Bottles of 25 and 100

TRADE MARK 'TABLOID' BRAND PARATHYROID GLAND AND CALCIUM
LACTATE [SEE B. W. & Co.]

R Glandulæ Parathyroideæ, gr. $\frac{1}{10}$ (0.0065 gm.)
(Equivalent to gr. $\frac{1}{40}$ [0.0016 gm.]
of desiccated gland)
Calcii Lactatis, gr. 5 (0.324 gm.)

Bottles of 25 and 100

PIONEER RESEARCH

THE pioneer research work of Burroughs Wellcome & Co. is well illustrated by such noteworthy products as 'ERNUTIN' and 'DIGINUTIN.' 'ERNUTIN,' which may be employed wherever ergot is indicated, is of unvarying strength and of the highest degree of activity. The most stable salt of Ergotoxine is ergotoxine ethanesulphonate. This was *originated* and *introduced* by Burroughs Wellcome & Co. in 1925, and is now, on the recommendation of the British Pharmacopœia Sub-committee on Ergot, added to the B.P., 1932, to replace the unsatisfactory hypodermic injection of ergot in former editions. 'TABLOID' HYPODERMIC ERGOTOXINE ETHANESULPHONATE is available in several strengths.

In order to replace unstable tinctures of digitalis, 'DIGINUTIN,' a stable solution of the total glucosides of digitalis leaf, prepared under laboratory conditions, corresponds in strength to fresh B.P. tincture of digitalis. 'TABLOID' 'DIGINUTIN' is now also available.

In the treatment of leprosy with esters of acids of the chaulmoogric series, 'MOOGROL' has been used in leper colonies throughout the world, and was the result of years of patient investigation and clinical trial. The addition of iodine markedly reduces the irritating property of the ethyl esters, and preliminary clinical evidence obtained with IODISED 'MOOGROL' has confirmed this.



ERGOTOXINE

ERGOTOXINE—an alkaloid of ergot possessing a powerful action in contracting the uterus—was discovered and isolated owing to the initiative of Burroughs Wellcome & Co. 'ERNUTIN' is a clear solution presenting Ergotoxine—together with 'Ergamine' and 'Tyramine'—*in definite amount* and in a state of chemical purity. 'ERNUTIN' (Oral) contains 0.033 per cent. and 'HYPOLOID' 'ERNUTIN' 0.1 per cent. of Ergotoxine Ethanesulphonate. This, the most stable salt of ergotoxine, was originated by Burroughs Wellcome & Co. 'Ergamine' and 'Tyramine' are organic bases present in ergot.

Preparations

TRADE MARK 'ERNUTIN' (ORAL) [SEE B. W. & Co.]

Containing 0.033 per cent. of Ergotoxine Ethanesulphonate.

Bottles of 30 c.c., 4 fl. oz. and 16 fl. oz.

TRADE MARK 'HYPOLOID' BRAND 'ERNUTIN' TRADE MARK [SEE B. W. & Co.]

Containing 0.1 per cent. of Ergotoxine Ethanesulphonate.

Ampoules of 0.6 c.c. (min. 10 approx.) of sterile solution, in boxes of 6

ERGOTOXINE ETHANESULPHONATE presents Ergotoxine in a chemically-pure state. This salt, originated by Burroughs Wellcome & Co. in 1925, is white, crystalline, stable and more soluble than the phosphate.

Preparations

TRADE MARK 'TABLOID' BRAND ERGOTOXINE ETHANESULPHONATE, 0.0005 gramme [SEE B. W. & Co.]

Bottles of 25

TRADE MARK 'TABLOID' HYPODERMIC ERGOTOXINE ETHANESULPHONATE, gr. 1/100 (0.00065 gm.); 0.00025 gramme.; and 0.0005 gramme [SEE B. W. & Co.]

Each strength in tubes of 12

TRADE MARK 'WELLCOME' BRAND ERGOTOXINE ETHANESULPHONATE

Tubes of 0.1 gramme

TRADE 'ALEPOL' MARK

Sodium Salts of a Selected Fraction of the less irritating lower melting-point Fatty Acids of Hydnocarpus Oil

THE fatty acids contained in chaulmoogra oil, when administered in leprosy, tend to cure the condition by causing local reactions in the leprotic tissue, resulting in the release of the bacilli and their consequent destruction. Investigations in the Burroughs Wellcome & Co. laboratories resulted in the issue of 'ALEPOL,' which presents the sodium salts of the less irritating lower melting-point fatty acids of *Hydnocarpus wightiana* oil. A 3 per cent. solution of 'ALEPOL' is injected, subcutaneously or intramuscularly, for the production of lepra reactions in the appropriate stage of leprosy.

Preparation

'ALEPOL' [SEE LIST B. W. & Co.]

(Trade Mark)

Bottles of 25 gm. and 100 gm.

IODISED TRADE 'MOOGROL' MARK

A Mixture of Esters of the Acids of the Chaulmoogric Series with 0.5 per cent. Iodine

IODISED 'MOOGROL' is a mixture of esters of the acids of the chaulmoogric series with 0.5 per cent. of iodine, suitable for intramuscular or intradermal injection. The addition of the iodine markedly reduces the irritating quality of the ethyl esters.

The intradermal method has been employed by the Philippine workers for some time. The advantages claimed are that it produces more rapid resolution of the superficial lesions and that it is relatively free from general and local reactions.

At the Leonard Wood Memorial Conference of Leprosy, held at Manila in January, 1931, the use of iodised esters, particularly by the intradermal method, was strongly recommended.

Preparation

IODISED 'MOOGROL' [SEE LIST B. W. & Co.]

(Trade Mark)

Bottles of 25 c.c., 100 c.c. and 1 litre



DIGITALIS PURPUREA



TRADE 'DIGINUTIN' MARK
(Physiologically Standardised)

'DIGINUTIN' is a stable solution of the total glucosides of digitalis leaf, freed from inert material and submitted to biological assay. One advantage of 'DIGINUTIN' is its stability.

'DIGINUTIN' is prepared under laboratory conditions from standard digitalis leaf and corresponds in strength to *fresh* B.P. Tincture.

In order to secure, for ambulatory patients, the additional advantage of convenience in administration, 'DIGINUTIN' is also issued as a 'TABLOID' product. The strength of each product is standardised so as to be equivalent to a dose of 5 or 10 minims of the B.P. Tincture of Digitalis.

CAUTION.—Because '*Diginutin*' is of full strength when made, and retains its full strength on keeping, it may actually be more potent than the digitalis tincture hitherto employed. When giving massive doses, therefore, caution is necessary.

Preparations

'DIGINUTIN'—(For Oral Administration)—A stable solution (Trade Mark) of the total glucosides of digitalis leaf. 1 c.c. (17 minims) corresponds to 0.1 gm. (gr. 1-1/2) of standard digitalis leaf=approx. 1 Cat Unit
[SEE LIST B. W. & Co.]

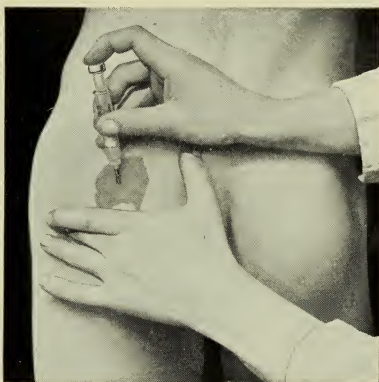
Bottles of 1 fl. oz. and 8 fl. oz.

TRADE MARK 'TABLOID' BRAND 'DIGINUTIN', TRADE MARK min. 5 (0.296 c.c.); and min. 10 (0.592 c.c.) [SEE LIST B. W. & Co.]

Each strength in bottles of 25 and 100

INJECTION TREATMENT

THE first recorded injection by means of an instrument was made by an Irish surgeon in 1844. It was not until 1852, however, that Charles Pravaz, Lyons, devised an instrument, consisting of a barrel, plunger and trocar, from which later models have been evolved. The latest development is the 'AGLA' Hypodermic Syringe in a Spirit-tight Container. This compact outfit enables an 'AGLA' Hypodermic Syringe, with a needle in



Intramuscular Injection

position, to be carried, similarly to a fountain pen, in the vest-pocket, ready for immediate use. It consists of an 'AGLA' Two-piece Hypodermic Syringe fitted with a Rustless steel needle in a glass container. The piston acts as a stopper and fits firmly into the glass container, thus preventing

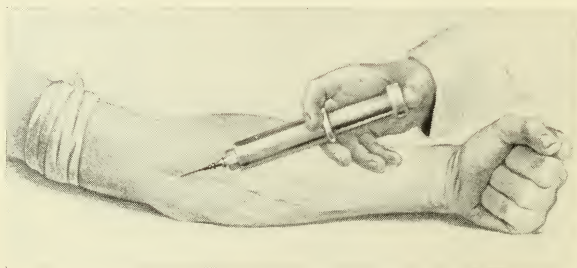


evaporation or leakage of the alcohol, in which the syringe is constantly immersed. The Syringe and Spirit-tight Container are supplied in a metal case to ensure safe carriage in pocket or bag.

The 'AGLA' Hypodermic Syringe, Two-piece, in Spirit-tight Container is issued in sizes 1, 5 or 10 c.c. The 1 c.c. size is also graduated in minims.

TRADE MARK 'HYPOLOID' BRAND PRODUCTS

IN 'HYPOLOID' products the physician has at his disposal a wide range of medicaments convenient for immediate injection and of an exceptionally high standard of reliability and accuracy. Each 'HYPOLOID' product contains the stated quantity of medicament, either in solution or suspended in a non-irritating fluid vehicle, and protected from contaminating influences by an ampoule. The



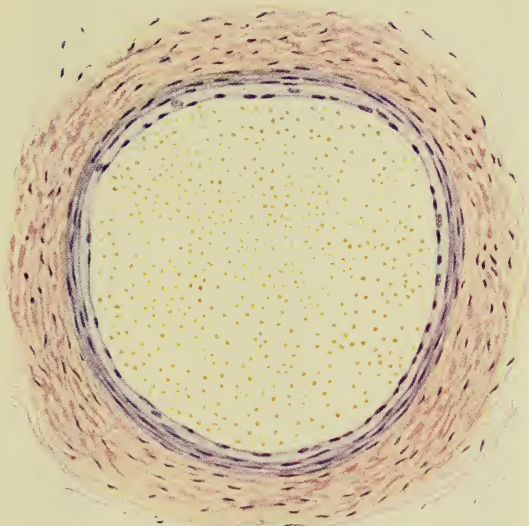
Intravenous Injection

'HYPOLOID' ampoules are made from specially-tested neutral hard glass, having no deleterious action on the contents.

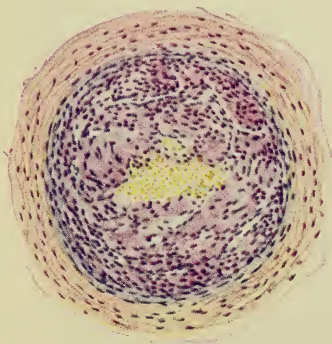
Unless otherwise mentioned, each 'HYPOLOID' ampoule enables one cubic centimetre (approximately min. 16) to be injected.

(For full list of 'Agla' Syringes, Hypodermic Needles and 'Hypoloid' Products, see Wellcome's Medical Diary)

SEMI-DIAGRAMMATIC SECTIONS OF VEIN
BEFORE AND AFTER INJECTION



BEFORE INJECTION



AFTER INJECTION

Thrombus partially
organised; a small
central lumen of
blood still remains.
Note reduced size
of vein



RIGHT LEG.—Advanced varicose condition of internal Saphenous Vein.

LEFT LEG.—Result of treatment with 'Hypoloid' Quinine and Urethane. Note coloration over site of sclerosed vein.

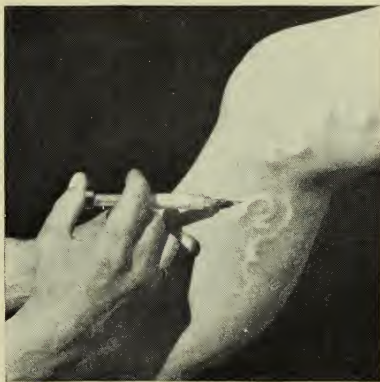
TREATMENT OF VARICOSE VEINS BY INJECTION

'HYPOLOID' QUININE AND URETHANE, 'HYPOLOID' SODIUM SALICYLATE and 'HYPOLOID' SODIUM MORRHUATE are used in the injection treatment of varicose veins. The solution is injected into the vein at various points by means of a syringe and a fine needle. The contact of the injection fluid with the endothelium of the vein results in a phlebitis and a gradual deposition of fibrin; organisation takes place and the vein shrinks to a solid cord.



QUININE AND URETHANE

'HYPOLOID' QUININE AND URETHANE contains Quinine Bihydrochloride, 0.26 gm., and Urethane, 0.13 gm., in each 2 c.c. of sterile, distilled water and is ready for immediate intravenous injection. A 2 c.c. 'AGLA' Syringe may be used, fitted with a needle one inch in length with a short bevel and of about 25 S.W.G. (Burroughs Wellcome & Co. Rustless Steel Needle, No. 218, is issued for this purpose).



VARICOSE VEIN INJECTION



Preparation

'HYPOLOID' BRAND QUININE AND URETHANE

(Trade Mark)

[B. W. & Co.]

Quinine Bihydrochloride, 0.26 gm., and Urethane,
0.13 gm., in 2 c.c.

*Boxes of 5 ampoules and rubber-stoppered amber-coloured
bottles containing 25 c.c.*

SODIUM SALICYLATE

THE technique of injection is similar to that of Quinine and Urethane. At the first sitting it is usual to use the 20 per cent. solution, in order to test the susceptibility of the patient. In the majority of cases, it is necessary to use the higher strengths at subsequent sittings, in order to obtain the desired results. As the vein rapidly becomes immune to the sclerosing effect of sodium salicylate, it is important to pass on to the effective strength of solution as quickly as possible.

Preparations

'HYPOLOID' BRAND SODIUM SALICYLATE [B. W. & Co.]
(Trade Mark)

20 per cent., 30 per cent. and 40 per cent. solution, in
ampoules of 5 c.c.

Each strength in boxes of 5 ampoules

SODIUM MORRHUATE

IT has been claimed that Sodium Morrhuate possesses distinct advantages over other sclerosing agents used in the treatment of varicose veins.

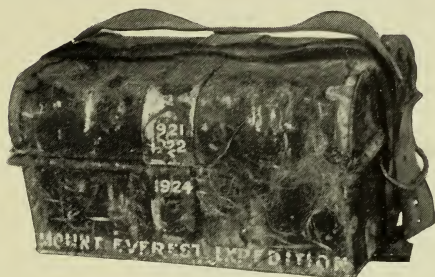
Preparations

'HYPOLOID' BRAND SODIUM MORRHUATE [B. W. & Co.]
(Trade Mark)

Presents the Sodium Salts of a Selected Fraction of
the Fatty Acids of cod liver oil in clear solution.

5 per cent. and 10 per cent. solution, in ampoules
of 2 c.c., in boxes of 5; and in rubber-capped
bottles of 25 c.c.

HISTORICAL
TRADE MARK 'TABLOID' BRAND
 MEDICAL EQUIPMENTS



MOUNT EVEREST

The 'TABLOID' MEDICINE CHEST which served the Expeditions
 of 1921, 1922 and 1924



COBHAM

'TABLOID' MEDICAL EQUIPMENT carried by SIR ALAN COBHAM
 on his 12,000-mile flight and aerial survey of Central Africa,
 July-August, 1931

NORTH POLE AND SOUTH POLE



'TABLOID'
MEDICINE
CASE
used by
REAR-ADMIRAL
PEARY

Inset is a
reproduction of one of
the eight tubes of
'TABLOID'
products carried to the
NORTH POLE

PEARY



SCOTT

'TABLOID' MEDICAL EQUIPMENT
carried to the SOUTH POLE by CAPTAIN SCOTT

TRADE
MARK 'TABLOID' BRAND
CHESTS AND CASES

THE problem of providing a ready supply of medicaments for administration in emergencies or places remote from institutional aid was solved many years ago by Burroughs Wellcome & Co. In the course of time, various types of medical and first-aid outfits have been evolved to meet new conditions as they arose, so that now equipments are available, suitable for every occasion.

The exhibit shows photographs and relics of Burroughs Wellcome & Co. Medicine Cases carried by many famous explorers, travellers and aviators in every part of the world, on many epic adventures.

'TABLOID' MEDICAL EQUIPMENTS hold the unique record and distinction of having been **First, Second and Third at the North Pole and First and Second at the South Pole.** They were the **only** medical outfits actually carried to or over the Poles by Peary, Amundsen, Scott and Byrd.

A 'Tabloid' Medicine Case was used by Rear-Admiral Byrd, U.S.N., on his flight to the North Pole and later on his South Pole expedition. On his transatlantic flight he carried 'Tabloid' First-Aid.



Recently, Sir Hubert Wilkins attempted to reach the North Pole by the submarine "Nautilus." His equipment included four 'Tabloid' Aeronautical Cases, designed to meet any first-aid emergency.

The credit of being the first to circumnavigate the globe through the air belongs to Lieutenant Lowell H. Smith and his companions of the U.S.A. Army Air Service. Each plane carried as its sole medical equipment a 'Tabloid' Medicine Case.

In the Imperial flights undertaken by Sir Alan Cobham, 'Tabloid' First-Aid has formed an essential part of his equipment. On his memorable flight from England to Australia and back (June-October, 1926) he carried a 'Tabloid' Outfit. Sir Alan also had a 'Tabloid' Medical Equipment on his 12,000-mile flight and aerial survey of Central Africa in July and August of 1931.

That preference should, time after time, be given to outfits issued by Burroughs Wellcome & Co., is not mere coincidence. Each succeeding order for 'Tabloid' Equipments is a striking and irrefutable tribute to the efficiency of the last.

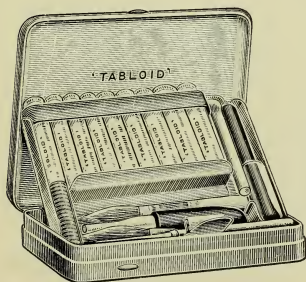
ILLUSTRATIONS OF MEDICINE CHESTS AND CASES



TYPICAL examples of 'TABLOID' and 'SOLOID' Brand Cases of hypodermic, ophthalmic and general medicaments are illustrated on this and the following pages, whilst a full description of their contents and prices will be found in the Price List Section of *Wellcome's Medical Diary*. Application for fuller particulars, and illustrations in actual colours, is cordially invited.

The assistance which Burroughs Wellcome & Co. are able to give in the choice of suitable equipments is always freely at the disposal of those who are called upon to select outfits for soldiers, travellers, missionaries and others proceeding to remote parts of the world.

No. 93 'Tabloid' Brand Aseptic Ophthalmic Pocket-Case



Exceptionally complete and compact. Fits easily into the vest pocket. If the contents be removed, the Case may readily be sterilised.

Nickel-plated
Metal

No. 93 'Tabloid' Brand Aseptic Ophthalmic
Pocket-Case

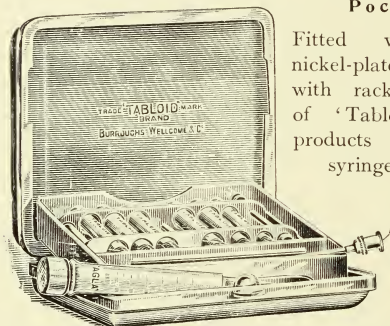
Measurements: $2\frac{3}{8} \times 2\frac{1}{8} \times \frac{3}{8}$ in.

TRADE MARK 'TABLOID' BRAND

HYPODERMIC POCKET-CASES

Provide, in the smallest possible space, complete equipments for hypodermic work. The metal cases may readily be sterilised on removal of their contents.

No. 7 'Tabloid' Brand Aseptic Hypodermic Pocket-Case



Fitted with detachable nickel-plated aseptic frame with rack carrying tubes of 'Tabloid' Hypodermic products and holders for syringe and needles.

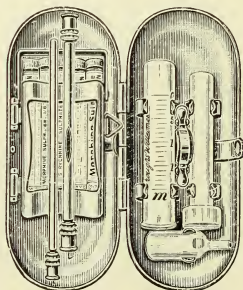
Aluminium and Silver

No. 7 'Tabloid' Brand Aseptic Hypodermic Pocket-Case
Measurements: $3\frac{1}{2} \times 3\frac{1}{8} \times \frac{7}{8}$ in.

No. 40 'Tabloid' Brand Aseptic Hypodermic Pocket-Case (*"The Mussel Shell"*)

Component parts held in metal clips and rack, ensuring maximum security.

Nickel-plated Metal, complete with soft leather cover.



No. 40 'Tabloid' Brand Aseptic Hypodermic Pocket-Case
Measurements: $3\frac{1}{2} \times 1\frac{3}{8} \times 1$ in.

TRADE MARK 'TABLOID' BRAND

MEDICINE CHESTS AND CASES

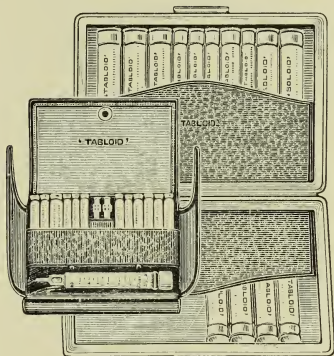


'TABLOID' Brand Medicine Chests and Cases have earned a reputation for convenience, portability and efficiency which places them in a class by themselves.

No. 126 'Tabloid' Brand Medicine Pocket-Case

A convenient handsome Case for the breast-pocket. The hypodermic equipment may be withdrawn from the larger case, if desired, for separate use.

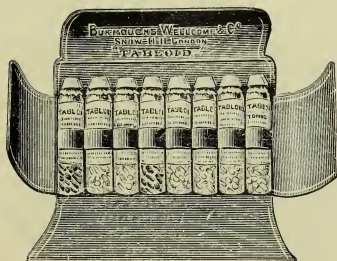
Cowhide, Morocco, Pigskin, Brown and Green Seal or Crocodile Leathers.



No. 126 'Tabloid' Medicine Pocket-Case
Measurements: $5\frac{1}{2} \times 4 \times 1\frac{1}{2}$ in.

No. 134 'Tabloid' Brand Medicine Pocket-Case

Fitted with eight phials of 'Tabloid' Brand products, etc.

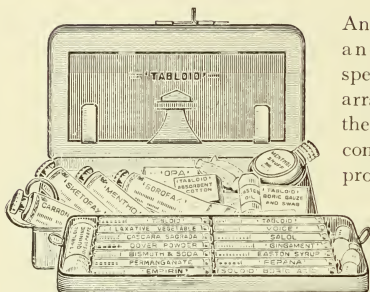


Solid Cowhide, unlined, Cowhide, Morocco, Pigskin, Brown Seal or Crocodile Leathers.

No. 134 'Tabloid' Brand Medicine Pocket Case
Measurements: $6\frac{1}{2} \times 4\frac{1}{2} \times 1\frac{3}{8}$ in.



No. 261 'Tabloid' Brand Medicine Case (*"The Orient"*)



An elegant, compact and well-fitted Case specially devised and arranged for service in the East. A reliable companion that will provide efficient aid on the spot.

Aluminised
Metal

No. 261 'Tabloid' Brand Medicine Case

Measurements: $5\frac{5}{8} \times 4\frac{1}{4} \times 2\frac{1}{4}$ in.

TRADE MARK 'SOLOID' BRAND

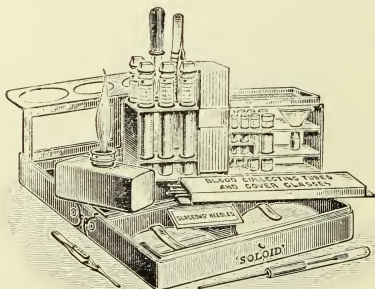
ANALYSIS AND TEST CASES

Portable outfits containing apparatus and reagents for the analyses of urine, water, sewage, etc., and equipments providing, in small compass, the essentials for the bacteriological examination of blood, pus, sputum, etc.

No. 505 'Soloid' Brand Bacteriological Case

Owing to its small size and light weight, this Case can readily be carried into the sick chamber to obtain a blood specimen or a throat swab.

Nickel-plated Metal, with soft leather' cover.

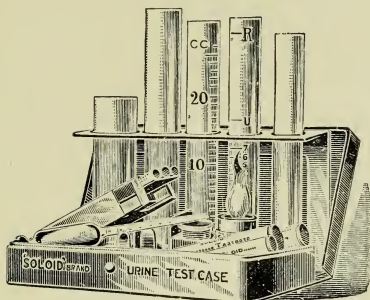


No. 505 'Soloid' Brand Bacteriological Case

Measurements: $6 \times 3\frac{1}{4} \times 1\frac{5}{8}$ in.

No. 510 'Soloid' Brand Urine Test Case

Compact and easily rendered aseptic.



Contains the means of applying to urine qualitative and quantitative tests for albumin, sugar, etc.

Nickel-plated Metal, with soft leather cover.

No. 510 'Soloid' Brand Urine Test Case

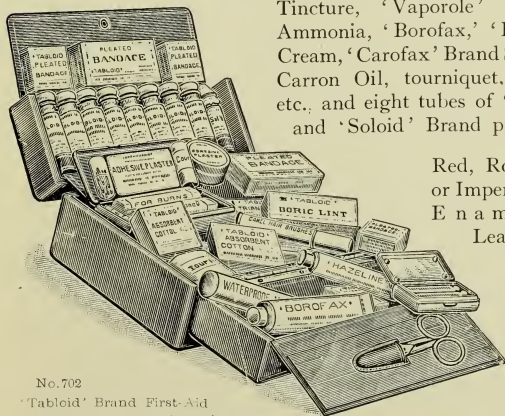
Measurements: $5\frac{3}{4} \times 2\frac{3}{4} \times 1\frac{1}{4}$ in.

TRADE MARK 'TABLOID' BRAND FIRST-AID

Compact, comprehensive outfits of dressings, first-aid accessories, etc.

No. 702 'Tabloid' Brand First-Aid

Contains 'Tabloid' Bandages and Dressings, 'Vaporole' Iodine Tincture, 'Vaporole' Aromatic Ammonia, 'Borofax,' 'Hazeline' Cream, 'Carofax' Brand Solidified Carron Oil, tourniquet, scissors, etc., and eight tubes of 'Tabloid' and 'Soloid' Brand products.



Red, Royal Blue or Imperial Green Enamelled Leather.

No. 702

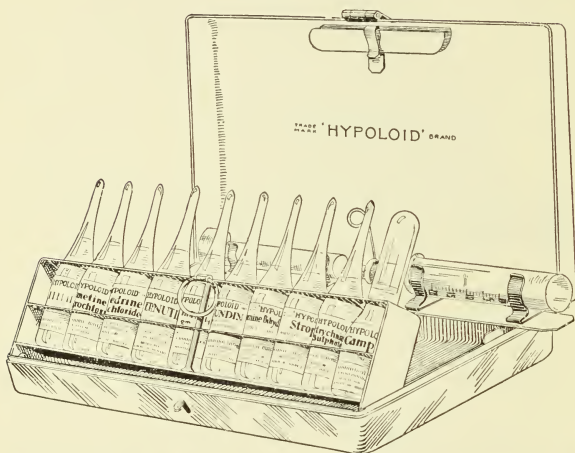
'Tabloid' Brand First-Aid

Measurements: $7\frac{1}{4} \times 5\frac{1}{4} \times 3$ in.

The Ideal Emergency Case

TRADE MARK 'HYPOLOID' BRAND

HYPODERMIC POCKET-CASE No. 62



Nickel-plated Metal. Measurements, $5 \times 3\frac{3}{8} \times \frac{3}{4}$ in. Weight about 10 oz.

- (1) Syringe section easily removable for sterilisation.
- (2) Breakages prevented by spring which reduces vibration to a minimum.
- (3) Containers cannot fall out when Case is opened.
- (4) Labels legible without removing containers.

Contains an 'AGLA' Aseptic Hypodermic Syringe (min. 20 or 1 c.c.), two Rustless steel needles, 10 'Hypoloid' products, two files and a list of 'Hypoloid' preparations.

Any selection of 'Hypoloid' products can be included according to the physician's individual requirements

The above Case is also supplied fitted with an 'AGLA' Syringe in Spirit-tight Container

DIETARY ADJUNCTS

THE specific effects which follow deficiency of Vitamins A and B in experimental animals are such as to suggest that long-continued vitamin-shortage over many years in the human adult may have results consistent with some conditions which are observed clinically. Intestinal stasis is a predominant feature in many of these cases, and the suggestion that this is a specific effect of long continued use of diet deficient in Vitamin B is not without considerable support. Chronic foci of bacterial invasion are, in all probability, associated with Vitamin A deficiency.

The two staple articles in modern diet—namely, meat and cereals—do not provide a complete diet. Both muscle meat ^{Muscle meat--} and the endosperm of seeds (white ^{Cereals} flour) possess negligible supplies of any of the vitamins.

Green leaves, with their rich vitamin content, make up for the deficiency in the cereal diet, and, further, green vegetable food possesses a high mineral content, ^{Green} _{vegetables} which again is complementary to the low content of seeds. By their vitamin and mineral content, therefore, green vegetables supply what are grave deficiencies in modern diet.



The cod possesses large reserves of both Vitamin A and Vitamin D in its liver, and cod liver oil is one of the richest sources of these dietary principles. It enables the physician readily to prescribe Vitamins A and D as a therapeutic measure.

COD LIVER OIL WITH MALT EXTRACT

The nausea experienced by some patients after taking cod liver oil has been effectively overcome in 'KEPLER' COD LIVER OIL WITH MALT EXTRACT. No taste of the oil remains in this combination, and difficulty of administration does not arise. This fact alone would be sufficient to give 'Kepler' Cod Liver Oil with Malt Extract a position of great usefulness to the physician.

The combination has, however, a greater claim which places it in a unique position amongst dietary medicaments. Malt extract contains the B vitamins. Vitamin B deficiency is always a serious factor in cases of hypo-vitaminosis. The problem of adding a supply of Vitamin B to the diet, in addition to Vitamins A and D, is simplified by prescribing 'Kepler' Cod Liver Oil with Malt Extract.

THE IDEAL DIETARY ADJUNCT

FEW conditions of hypo-vitaminosis can be considered as due entirely to the lack of one single vitamin. The symptoms due to the deficiency of one vitamin are accentuated when

the complication of deficiency in another vitamin is superadded. The physician in these cases is faced with the task of thoroughly rebuilding the diet with the introduction of a full vitamin content.



Diets deficient in vitamins may be fully completed by administering 'Kepler' Cod Liver Oil with Malt Extract, and adding fruit to the diet. The value as a dietary adjunct of 'Kepler' Cod Liver Oil with Malt Extract, thus providing Vitamins A, B and D, cannot be over-estimated. Whichever one of the varied types of nutritional disorders the physician approaches, either in infants or in adults, 'Kepler' Cod Liver Oil with Malt Extract simplifies the problem in a fashion not to be obtained by other means.

In all the conditions in which cod liver oil is indicated, the combination with malt extract as in 'Kepler' Cod Liver Oil with Malt Extract gives the physician still further aid.

'KEPLER' COD LIVER OIL

For many years 'KEPLER' COD LIVER OIL has maintained its position as an effective therapeutic agent in diseases associated with Vitamins A and D. It is presented in 'Kepler' Cod Liver Oil with Malt Extract, which is delicious to take, and, in addition, contains the B vitamins. 'Kepler' Cod Liver Oil undergoes animal feeding tests (*see Figs 1 and 2, page 33*). Such control provides the physician with a safeguard which is readily appreciated.

Physiological
tests of
'Kepler'

Cod Liver Oil



All 'Kepler' Cod Liver Oil is tested for Vitamin A by the most practicable method, and the results are confirmed from time to time by the growth test on rats. All 'Kepler' Cod Liver Oil is tested for its content of Vitamin D in accordance with the standard of the Medical Research Council. The B Vitamins are invariably present in 'KEPLER' MALT EXTRACT.

RICKETS

THE value of cod liver oil in the treatment of rickets has been established by clinical results obtained in practice extending over a long period of years.

From being empirical, this treatment has now become established on a definite basis by reason of the discovery that good cod liver oil is rich in Vitamin D, which has a definitely-proved anti-rachitic action.

The essential, in making choice of a cod liver oil preparation, for use either in the prevention or in the cure of rickets, is to know that it is rich in Vitamin D. So far as 'KEPLER' COD LIVER OIL is concerned, this certainty is established, not merely by the records of many years' clinical experience, but by the fact that it has been since 1923 specially tested for its vitamin content.

Comparatively recently, another source of Vitamin D has become available, in Irradiated Ergosterol, which is particularly valuable for supplementing the action of cod liver oil in advanced and intractable cases of rickets, when, as is always

Irradiated
Ergosterol

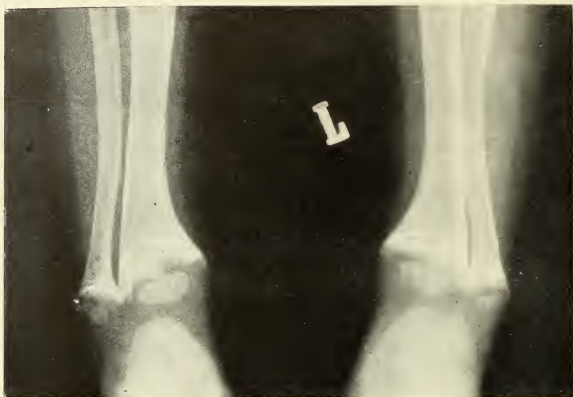
RAT SHOWING EFFECTS OF VITAMIN A DEFICIENCY



The general condition of the animal is poor, and the typical xerophthalmia is observed in the eye
Xerophthalmia cleared up in 25 days. Substantial improvement in condition in 5 days

'KEPLER' COD LIVER OIL WITH MALT EXTRACT
(*Trade Mark*)

RICKETS



Radiogram of ankle in rickets, showing lipping and irregularity of the epiphyseal line



Radiogram of ankle after administration of cod liver oil to a case of rickets, showing evidence of fresh calcification at the epiphyseal line

VITAMIN A CONTENT OF 'KEPLER' COD LIVER OIL

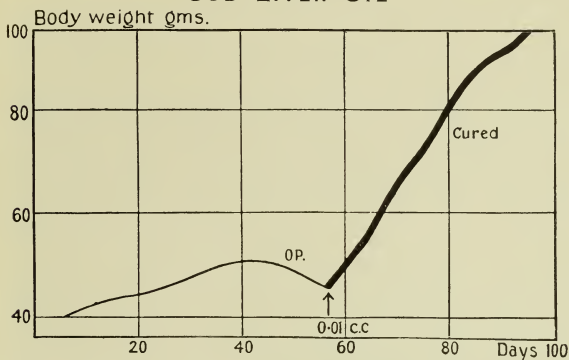


FIG. 1.—Up to the arrow the rat was kept on a diet deficient in Vitamin A, but containing Vitamin D in the form of irradiated ergosterol and Vitamin B in the form of yeast extract. At the arrow, 0.01 c.c. of 'Kepler' Cod Liver Oil was added to the diet each day, with resulting increased growth. Xerophthalmia developed at the point marked OP. and disappeared at the point marked *cured*.

VITAMIN B CONTENT OF 'KEPLER' MALT EXTRACT

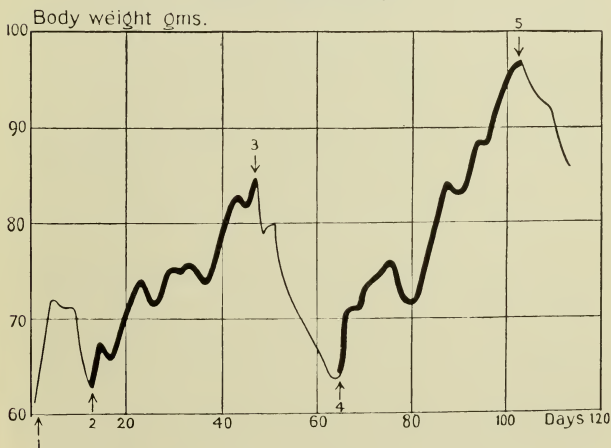


FIG. 2.—The rat was fed on a diet deficient in Vitamin B from (1) to (2). At (2) 'Kepler' Malt Extract was added to the diet. At (3) the addition of the malt extract was stopped. At (4) 'Kepler' Malt Extract was added to the diet again and at 5 stopped again. Note the lack of growth when the 'Kepler' Malt Extract was withdrawn.

investigation up to the discovery of Irradiated Ergosterol and then describes in some detail each vitamin under separate headings. Some interesting remarks and generalisations are made in connexion with modern diet and the book concludes with a summary of the rational therapeutics of cod liver oil.

‘KEPLER’ MALT EXTRACT is prepared solely from the finest malted barley. It presents maltose and Vitamin B together with the ferment diastase, phosphates and albuminoids and is absolutely free from alcohol. In addition, it is particularly valuable as a vehicle for nauseous medicaments.

‘KEPLER’ COD LIVER OIL WITH MALT EXTRACT presents the finest cod liver oil so associated with the malt extract as to form a palatable combination of very agreeable flavour. It is rich in Vitamins A, B and D and is the ideal dietary adjunct in cases of specific disease as well as in conditions of general vitamin deficiency.

Preparations

‘KEPLER’ MALT EXTRACT [⁵¹¹/₁₅₇ B. W. & Co.]
(Trade Mark)

Bottles of two sizes

‘KEPLER’ COD LIVER OIL WITH MALT EXTRACT
(Trade Mark) [⁵¹¹/₁₅₇ B. W. & Co.]

Bottles of two sizes

For combination with Chemical Food, Glycero-phosphates, Hæmoglobin, Hypophosphites, Iron Iodide, Pepsin and Pancreatin, and Creosote, see *Wellcome's Medical Diary*.



CAROTENE

CAROTENE is a member of the group of pigments known as lipochromes, which are present in many fats. It is responsible for the colour of carrots, and is contained in cabbage, spinach and tomatoes. It is also found in egg-yolk, milk and butter, being here derived from vegetable foodstuffs. Carotene is an unsaturated hydrocarbon having the empirical formula $C_{40}H_{56}$, and may be obtained in pure crystalline form.

Animal experiment showed that pure crystalline carotene possesses growth-promoting powers similar to Vitamin A, and later investigations have shown that the specific anti-infective action of Vitamin A is also possessed by carotene. Excess of carotene given to an animal is stored not as carotene but as

Vitamin A; the Vitamin A stored in
Storage animal liver may be increased by feeding carotene. The pigmented carotene is therefore the precursor of the leuco Vitamin A. It would seem that Vitamin A is represented in the plant kingdom by carotene, but that the Vitamin A of the animal kingdom is an uncoloured substance differing slightly from carotene but having the same physiological characters.

Two products of 'TABLOID' CAROTENE are approximately equivalent to the Vitamin A contained in one teaspoonful of an average cod liver oil.

Preparation

'TABLOID' BRAND CAROTENE, 0.002 gramme (gr. $\frac{1}{312}$ approx.),
 (Trade Mark) *sugar-coated* [B. W. & Co.]
Bottles of 25

TRADE
MARK

'TABLOID' BRAND PRODUCTS

ALKALINE MEDICATION

THE necessity for the administration of alkaline draughts arises frequently in modern practice: sometimes as an ordinary antacid or as a cooling, refreshing drink; at other times, for the relief of conditions of hypo-alkalinity and the disturbed acid-base equilibrium occurring in acidosis.

It is difficult to persuade patients to persist in the treatment when sodium bicarbonate and similar alkalis are prescribed in the ordinary way. It is also noted that the psychological effects of such simple prescriptions are not good, and no single alkaline base can secure re-mineralisation of the system, which is often necessary.

'TABLOID' ALKALINE COMPOUND, EFFERVESCENT, solves these difficulties. One in a glass of water produces a very acceptable effervescent draught; the equivalent of 25 doses is contained in a tube; each product presents the alkali bases, sodium, potassium, magnesium and calcium, in precise amounts.

SUGGESTED USES.—As an antacid draught: to correct hypo-alkalinity associated with gastric disturbance, the vomiting of pregnancy, malnutrition, nephritis, diabetes, fevers, œdema: to restore the alkaline balance in acidosis and to assist re-mineralisation.

Rx 'TABLOID' BRAND ALKALINE COMPOUND, EFFERVESCENT
(Trade Mark) [B. W. & Co.]

Preparation

R	Sodii Bicarbonatis,	gr. 5	0.324 gm.
	Calcii Lactophosphatis,	gr. 3	0.194 gm.
	Potassii Bicarbonatis,	gr. 1	0.065 gm.
	Magnesii Sulphatis Anhyd.,	gr. 1	0.065 gm.
	Sodii Chloridi,	gr. 1	0.065 gm.
	Salis Effervescentis,	q.s.	

*The effervescent salt, on solution, produces 29.4 grains of soluble citrates
Tubes of 25*

IRON

BECAUSE of its hæmatinic value, iron, alone or in combination, is the therapeutic agent most usually employed in conditions of blood deficiency. Iron is conveniently prescribed in the form of Blaud Pill.

The therapeutic value of Blaud Pill depends upon the presence of iron carbonate in the ferrous state, but in ordinary forms of Blaud Pill there is great danger that this ferrous carbonate will be more or less oxidised to the irritating and astringent ferric salt.

The problem of securing the certain administration of ferrous carbonate in an unoxidised condition has been solved by the introduction of 'TABLOID' BLAUD PILL.

In this product the precise proportions of ferrous sulphate and alkaline carbonate are intimately associated in such a manner that interaction is prevented until the product is administered.

In the stomach, however, the interaction takes place and ferrous carbonate is formed. This fact is sufficient to account for the great superiority of the 'Tabloid' product. It is perfectly stable and permanent until it comes into contact with the gastric secretion.

Perfectly
stable and
permanent

'TABLOID' BLAUD PILL has given unqualified satisfaction in practice. It is easy to take, acts quickly and certainly, does not discolour the lips, tongue or teeth, and causes no impairment of the digestion.

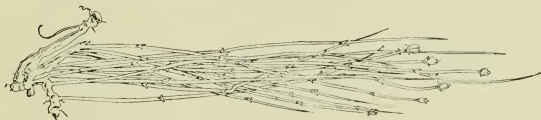
Preparations

TRADE MARK 'TABLOID' BRAND BLAUD PILL, gr. 5 (0.324 gm.); gr. 10 (0.648 gm.); and 0.25 gm. [B. W. & Co.]
(Sugar-coated)

Each represents 22.5 per cent. of ferrous carbonate.

Each strength in bottles of 100

EPHEDRA—MA HUANG



EPHEDRA—known to the Chinese as Ma Huang—is the source of one of the latest additions to our materia medica—the alkaloid

Ephedrine. Investigation proves that there is great variation in the ephedrine content of different species of ephedra, and that some are practically devoid of activity.

The natural
genuine drug

EPHEDRINE HYDROCHLORIDE is prepared at the Wellcome Chemical Works, Dartford, Kent (Eng.), elaborate precautions being taken to secure purity, particularly in regard to freedom from pseudo-ephedrine and other subsidiary alkaloids, of which *l*-methyl-ephedrine and nor-*d*- ψ -ephedrine were discovered in Ma Huang by Burroughs Wellcome & Co. Standardisation by chemical means ensures uniformity of composition and therapeutic activity.

Preparations

'TABLOID' BRAND EPHEDRINE HYDROCHLORIDE, gr. 1/4
(Trade Mark) [0.016 gm.]; gr. 1/2 [0.032 gm.]; and
0.03 gm. [B. W. & Co.]

Each strength in bottles of 25 and 100; gr. 1/2 also in tubes of 6

'HYPOLOID' BRAND EPHEDRINE HYDROCHLORIDE, 0.03 gm.
(Trade Mark) [gr. 1/2 approx.], in 1 c.c. [B. W. & Co.]

Boxes of 10 ampoules

'VAPOROLE' BRAND EPHEDRINE SPRAY COMPOUND
(Trade Mark) [B. W. & Co.]

Ephedrine, 1 per cent.

Menthol

Camphor

Oil of Thyme

} of each, 2 per cent.

'Paroleine' Liquid Paraffin, to 1 fluid ounce

Bottles containing 1 fl. oz.

'TABLOID' BRAND PRODUCTS contain only the finest medicaments. They are of exceptional purity, accurate in dosage, portable, and keep well in any climate. 'TABLOID' products for general therapeutic effect are made so as to disintegrate immediately, whilst those intended to exercise a local action (as upon the throat) are so prepared that they dissolve slowly in the mouth and secure the prolonged application of a suitable solution of their constituents. 'TABLOID' preparations intended to act after leaving the stomach are coated with keratin, soluble only in the alkaline secretions of the intestine.

The word 'TABLOID' is a registered trade mark or brand. In counterfeit

This brand is stamped
on all genuine un-
coated products, thus:



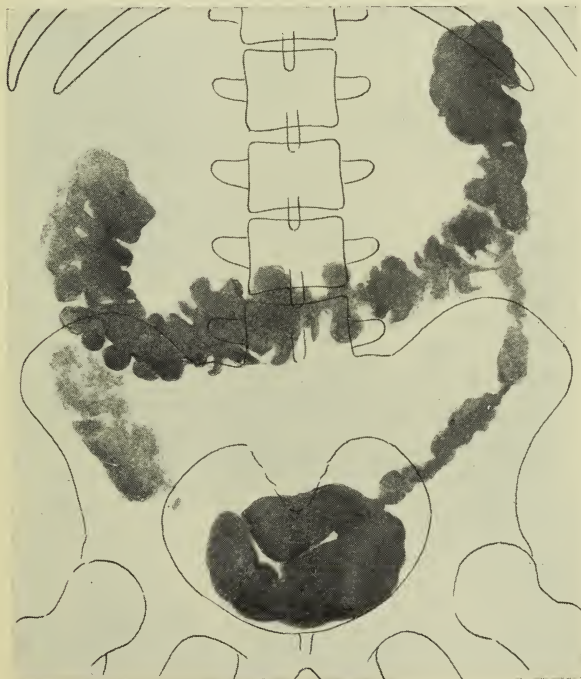
preparations there lies danger to the physician's reputation and the patient's health. In ordering or prescribing, the word 'TABLOID' should always be written in full.

Medical practitioners are requested to report any cases of substitution.

BARIUM SULPHATE SUSPENSION *Rx*

For use as an opaque meal

'Wellcome' Brand Barium Sulphate is specially prepared and adapted for use as an opaque meal or enema during radiographic examination of the



ATONIC CONSTIPATION
Appearance 60 hours after barium meal



alimentary canal. It is perfectly white in colour, is tasteless, odourless and neutral, and is of a satisfactory bulkiness.

The 'Wellcome' Brand Barium Sulphate which is used in the preparation of 'BAROLAC,' is in so finely-divided a state that no suspending agent is necessary. The covering power of the barium sulphate, in this form, will be found greater than that hitherto obtained in preparations of the salt suspended in a medium containing tragacanth or some other mucilaginous agent.

'BAROLAC' yields a clear cut shadow and gives no indication of sedimentation after administration.

The smoothness of the suspension, in conjunction with the absence of taste or smell, makes the addition of flavouring agents to 'BAROLAC' almost unnecessary, but if it is considered desirable, vanilla flavouring, saccharin or cocoa may be added to suit the individual patient's palate.

Preparation

TRADE MARK 'BAROLAC' BRAND BARIUM SULPHATE SUSPENSION,
30 per cent. [^{SEE} B. W. & Co.]

Specially prepared for use as an opaque meal.

Winchester Quarts

At every great
INTERNATIONAL EXHIBITION
at which the
BURROUGHS WELLCOME & CO.

products have been exhibited they have
received the greatest number of

COMPETITIVE
HIGHEST AWARDS
for

SCIENTIFIC EXCELLENCE.

The total number of Competitive
Highest Awards received now exceeds

270

including

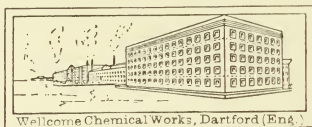
TWO GRAND PRIZES

at the

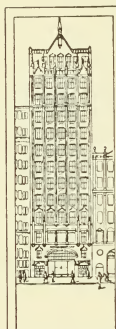
INTERNATIONAL CONGRESS
OF MEDICINE

London, 1913

BURROUGHS WELLCOME & CO. OFFICES, WAREHOUSES AND WORKS



Wellcome Chemical Works, Dartford (Eng.)



NEW YORK



LONDON



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* Wellcome Chemical and Galenical Works and Laboratories
Ville LaSalle, near Montreal

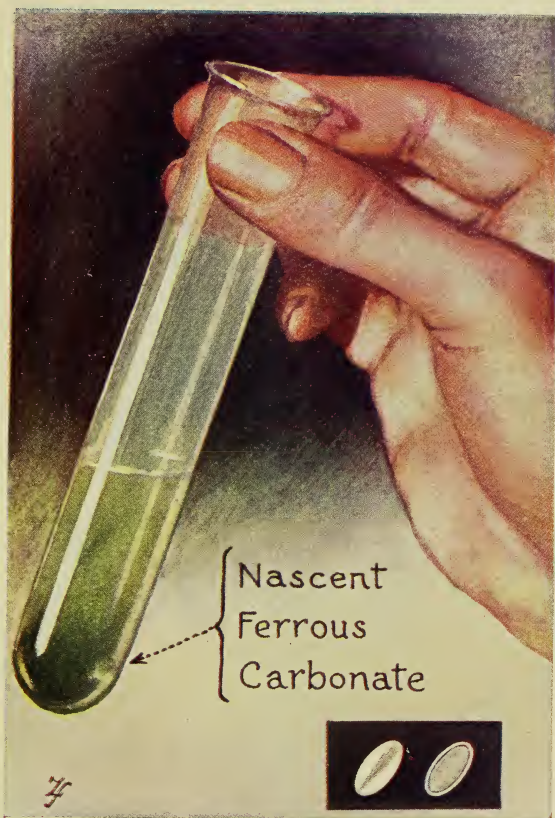
† Wellcome Chemical and Galenical Works and Experimental
Laboratories, New York



BURROUGHS WELLCOME & CO.
(THE WELLCOME FOUNDATION LTD.)
LONDON (ENG.)

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Ordinary BLAUD PILL is liable to undergo progressive oxidation and may be therapeutically inert.

In TRADE MARK 'TABLOID' BRAND BLAUD PILL the ingredients are presented so that interaction is delayed until the product reaches the stomach where fresh ferrous carbonate is at once formed.



A FIELD OF BELLADONNA
The Wellcome Materia Medica Farm



DIGITALIS (*Digitalis purpurea*) IN FLOWER
The Wellcome Materia Medica Farm

From direct colour photographs developed with
'TABLOID' 'RYTOL'



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'TABLOID'

The word 'TABLOID' is a registered Trade Mark.

The word 'TABLOID' denotes a Burroughs Wellcome & Co. product, and is applied to many classes of products.

The word 'TABLOID' on a package, wherever purchased, ensures supreme and uniform quality.

The word 'TABLOID' on your prescription secures for your patient a product of the same composition and activity always and everywhere.

The word 'TABLOID' may not be used except with reference to a Burroughs Wellcome & Co. product.

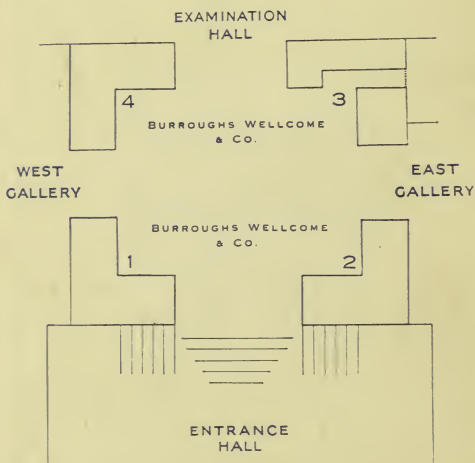
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Offenders are prosecuted rigorously in the interests of prescribers, dispensers, patients and the owners of the Trade Mark

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Visitors to the Centenary Meeting of the British Medical Association are invited to visit the Burroughs Wellcome & Co. Exhibits, Nos. 1 to 4, in the Vestibule, University of London; also the Burroughs Wellcome & Co. Exhibition Galleries, 10, Henrietta Street, Cavendish Square, W. 1, to inspect additions to Materia Medica and the products resulting from recent research.

彩 照

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